

## The evolutionary status of UX CVn

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### Abstract

We have analyzed available spectroscopic and photometric observations of the close binary UX CVn using model atmospheres. Theoretical spectra and light curves were derived from models of a precataclysmic variable and a close binary consisting of degenerate stars. We have used the 6-m telescope of the Special Astrophysical Observatory to obtain ten moderate-resolution spectra at three orbital phases. Our analysis of the radial-velocity curve shows that the orbital period of the system has been stable over 40 yrs, and the variations of the intensities of lines of various elements at different phases and radial velocities indicates an absence of the reflection effect. As a result, we have classified UX CVn as a detached close binary consisting of a hot, low-luminosity sub-dwarf primary and a white-dwarf secondary. © 2002 MAIK "Nauka/Interperiodica".

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